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FIG. 1A

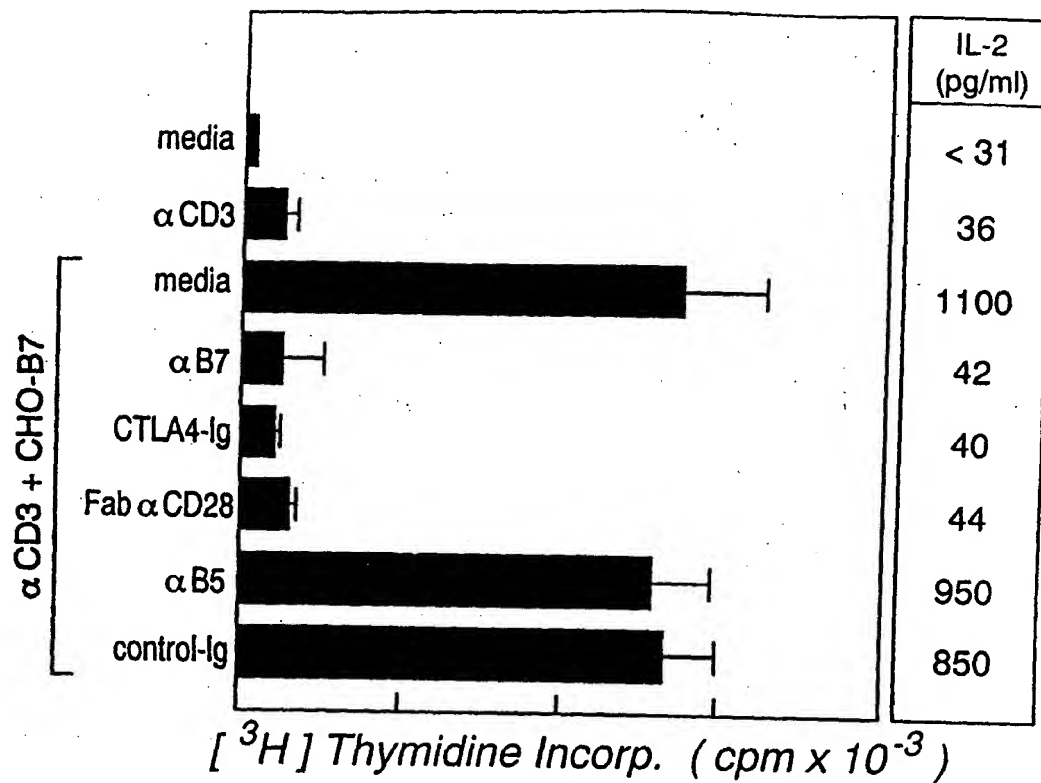
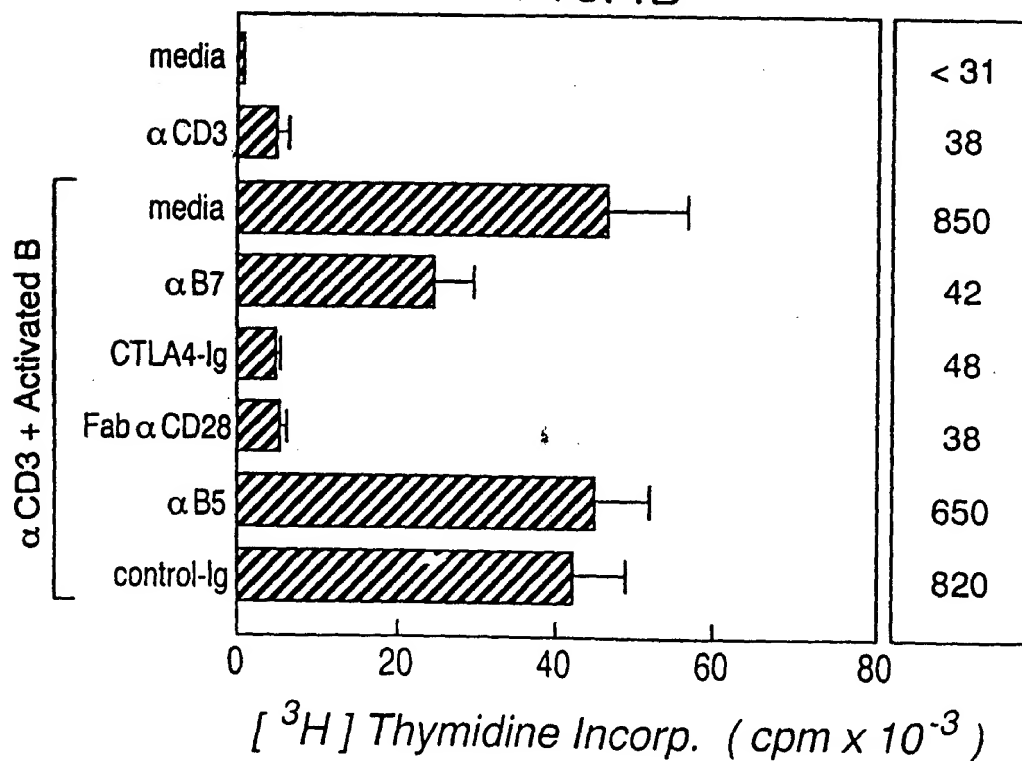


FIG. 1B





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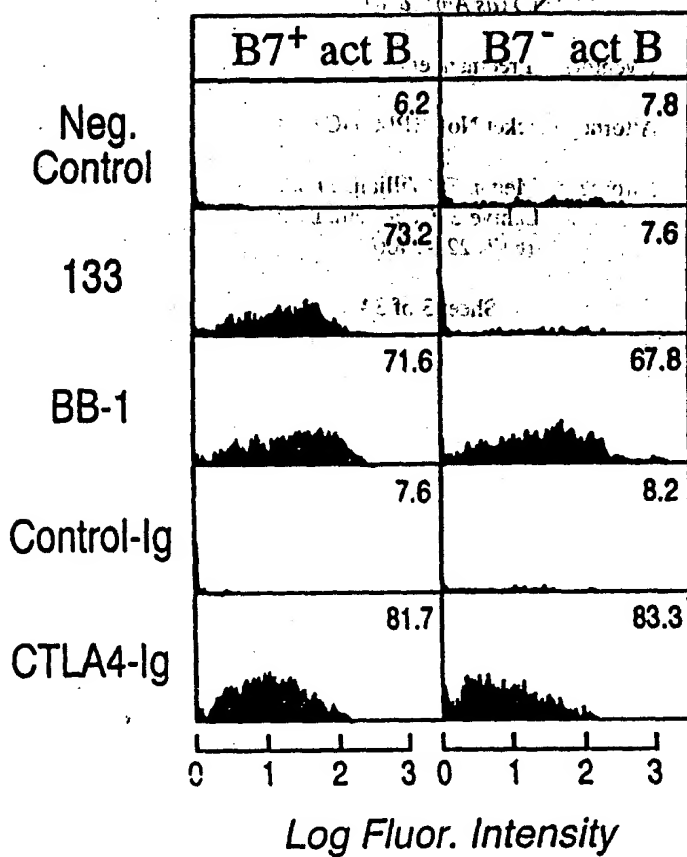


FIG. 4



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B Cells Activated by sIg Crosslinking

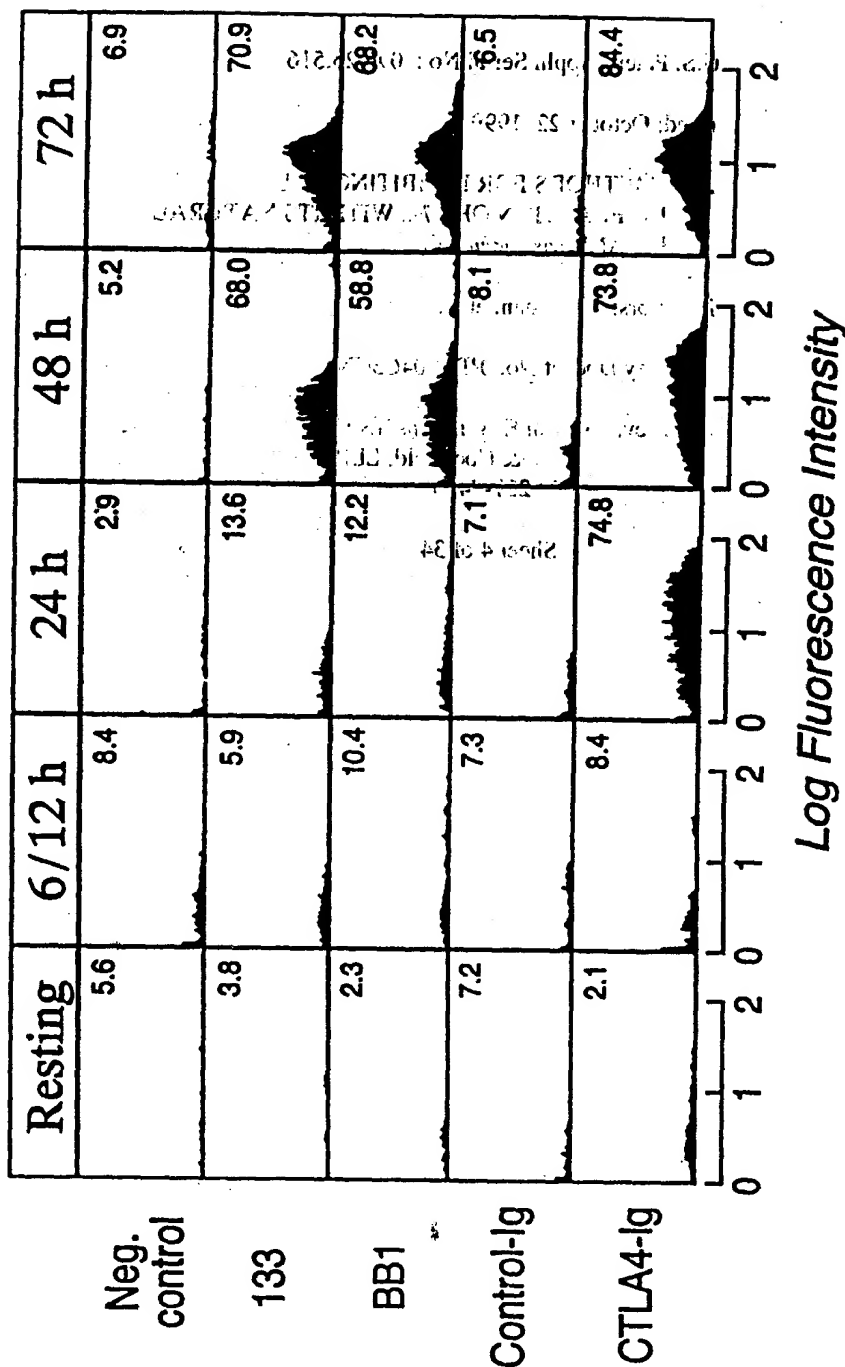


FIG. 5



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FIG. 8A

1	CACAGGGTGAAGAGCTTTGCTTCTCTGCTGCTGTAAACAGGGACTAGCACAGACACACGGATGAGTGGGGTC	70
71	ATTTCAGATATTAGGTACAGCAGAGCAAGCAGCCAAAATGGATCCCCAGTGCACTATGGGACTGAGTAACA	140
141	TTCTCTTTGTGATGGCCCTTCCTGCTCTCTGGTGTCTCTCTCTGAAGATTCAAGCTTATTTCATGAGAC	210
12	I L F V M A F L L S G A A P L K I Q A Y F N E T #	35
211	TGCAGACCTGCCATGCCAATTTCGAAAACCTCTCAAAACCAAGCCCTGAGTGAGCTAGTAGTATTTCGGCAG	280
36	A D L P C Q F A N S Q N Q S L S E L V V F W Q #	58
281	GACCAGGAAAACCTGGTTCGTGAATGAGGTATACTTAGGCCAAAGAGAAATTTCACAGCTGTTCAATCCCAAGT	350
59	D Q E N L V L N E V Y L G K E K F D S V H S K	81
351	ATATGGGCCCGACAAGTTTGTGATTCGGACAGTTGGACCCCTGAGACTTCACAATCTTCAGATCAAGGACAA	420
82	Y M G R T S F D S D S W T L R L H N L Q I K D K	105



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FIG. 8B

421 GGGCTTGATCAATGTATCATCCATCACAAGCCACAGGAATGATTGCGATCCACCAGATGAATTCT 490
106 G L Y Q C I I H H K K P T G M I R I H Q M N S 128
491 GAACTGTCAGTGCCTTGCTAACTTCAGTCAACCTGAAATAGTACCAATTTCTAATATAACAGAAAAATGTGT 560
129 E L S V L A N F S Q P E I V P I S N I T E N V 151
561 ACATAAAATTGACCTGCTCATCTATACACGGTTACCCAGAACCTAAGAAGATGAGTGTTCCTAAGAAC 630
152 Y I N L T C S S I H G Y P E P K K M S V L L R T 175
631 CAAGAATTCAACTATCGAGTATGATGGTATTATGCGAGAAATCTCAAGATAATGTCACAGAACTGTAGGAC 700
176 K N S T I E Y D G I M Q K S Q D N V T E L Y D 198
701 GTTCCATCAGCTGTCGTTCATTCCCTGAAGTTACGAGCAATATGACCATCTTCGTATTCGGAAA 770
199 V S I S L S V S F P D V T S N M T I F C I L E 221
771 CTGACAAGACGGCGCTTTTATCTTCACCTTTCTCTATAGAGCTTGAGGACCTCAGCCTCCCCCAGACCA 840
222 T D K T R L L S S P F S I E L E D P Q P P D H 245



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FIG. 8C

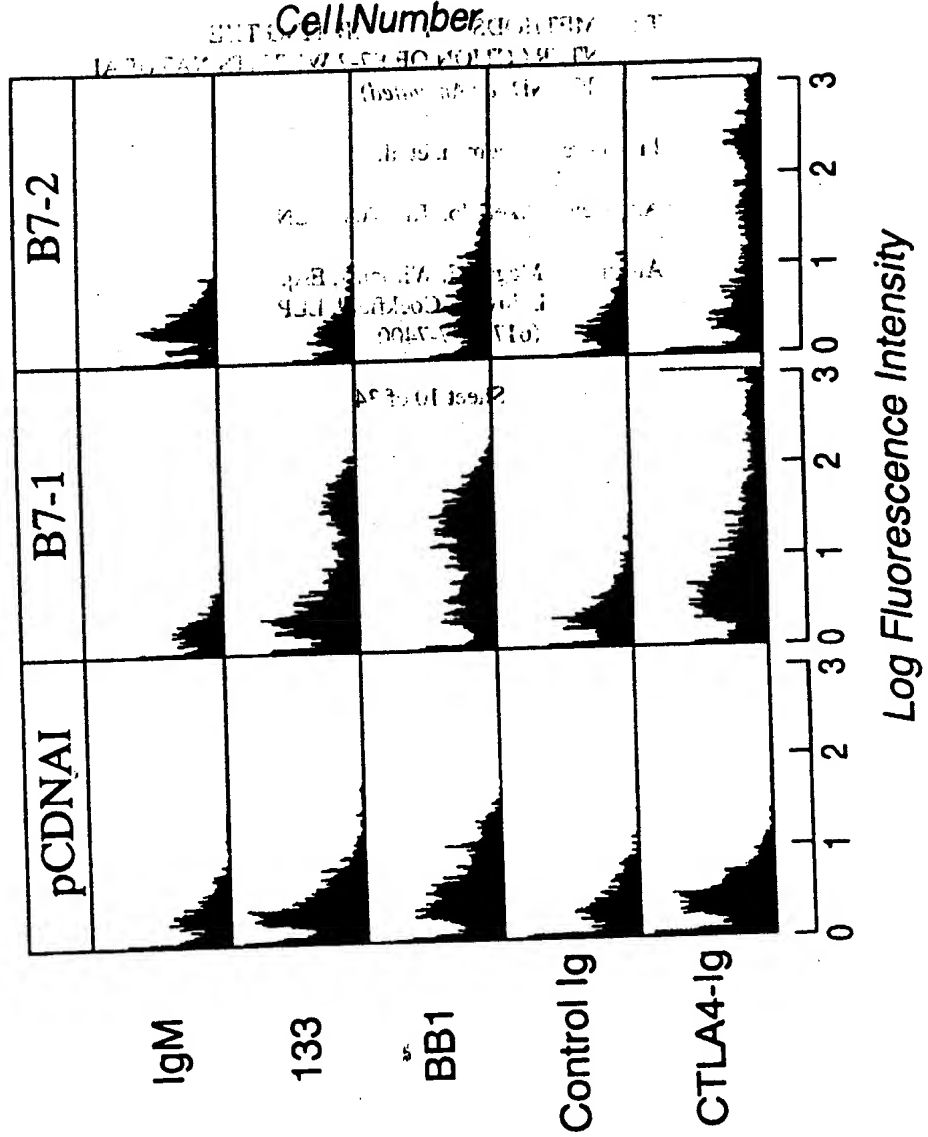
841	CATTCCTGGATTACAGCTGTACTTCCAACAGTTATTATATGTTGATGGTTTCTGTCTAATCTATGG	910
246	<u>I P W I T A V L P T V I I C V M V F C L F L W</u>	268
911	AA.TGGAAGAAGAAGCGCCCTCGCAACTCTTATAAATGTGGAACCAACACAAATGGAGAGGGAAGAGA	980
269	K W K K K R P R N S Y K C G T N T M E R E	291
981	GTGAACAGACCAAGAAAGAGAAAAATCCATATACCTGAAAGATCTGATCAAGCCACCGCTTTTAA	1050
292	S E Q T K K R E K I H I P E R S D E A Q R V F K	315
1051	AAGTTGGAAGACATCTTCATGCGACAAAAGTGATACATGTTTAAATTAAGAGTAAGCCCAAAAAA	1120
316	S S K T S S C D K S D T C F *	329



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FIG. 9



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FIG. 10A

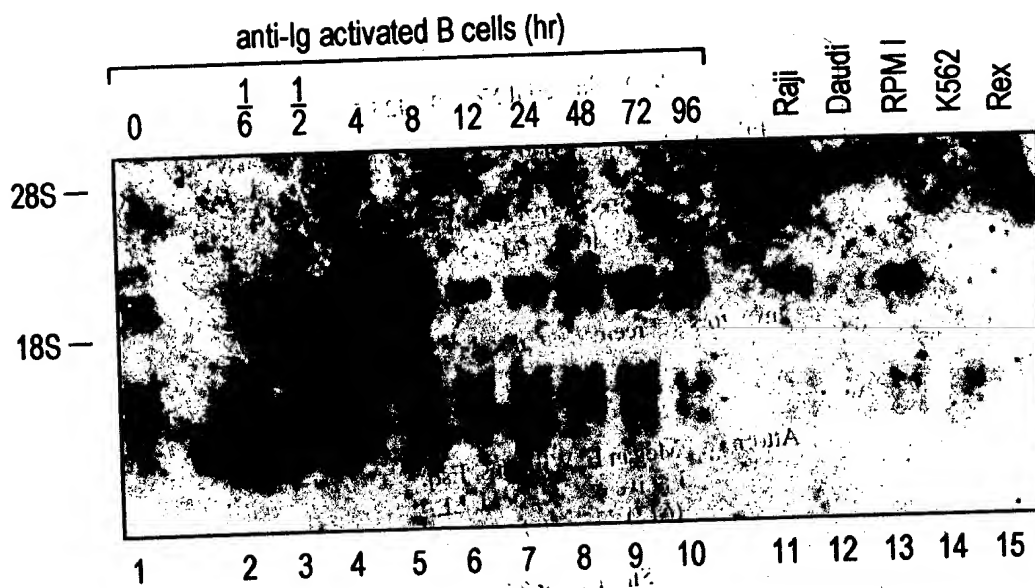
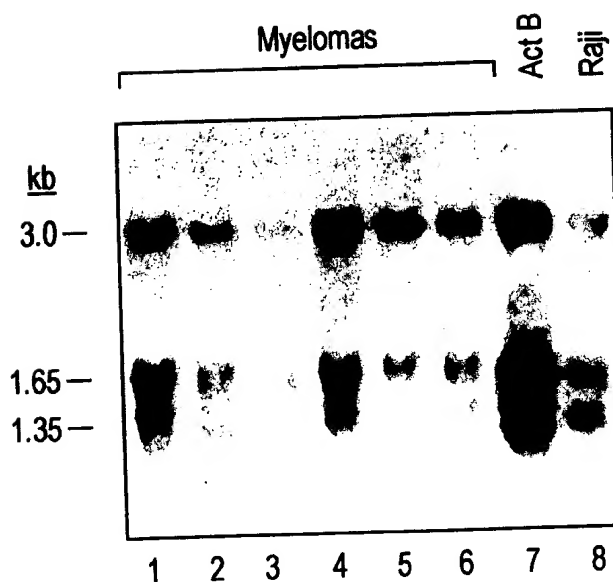


FIG. 10B





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FIG. 11A

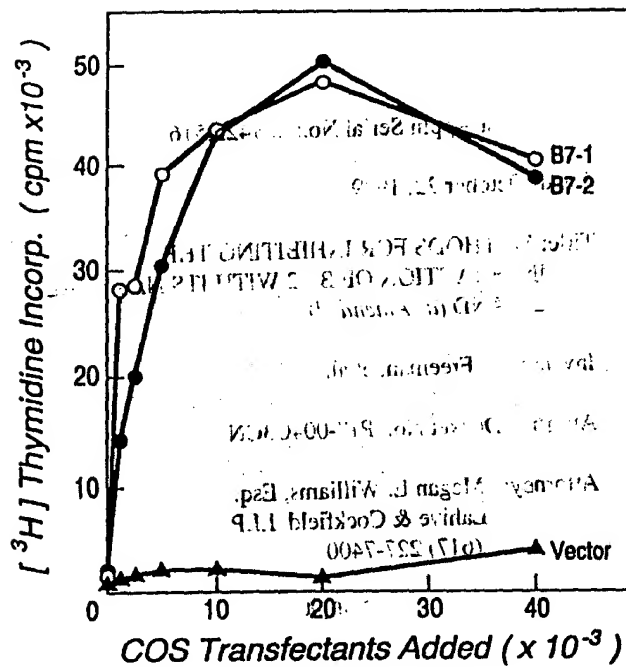
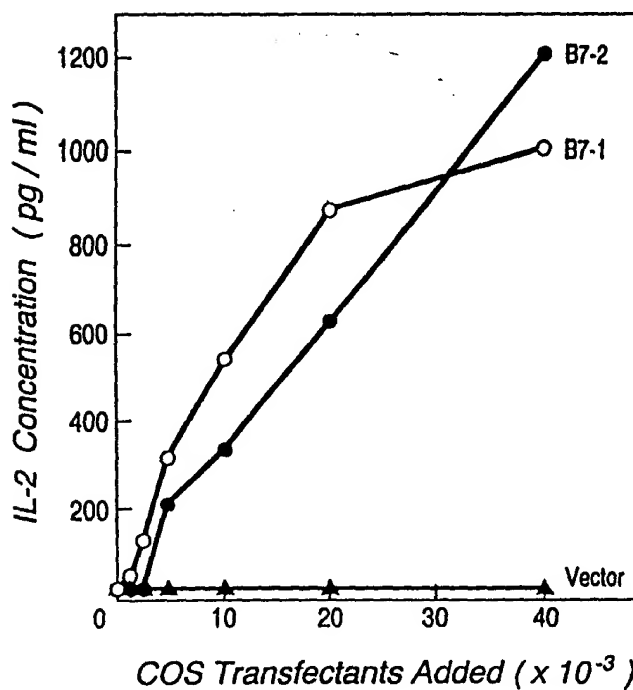


FIG. 11B

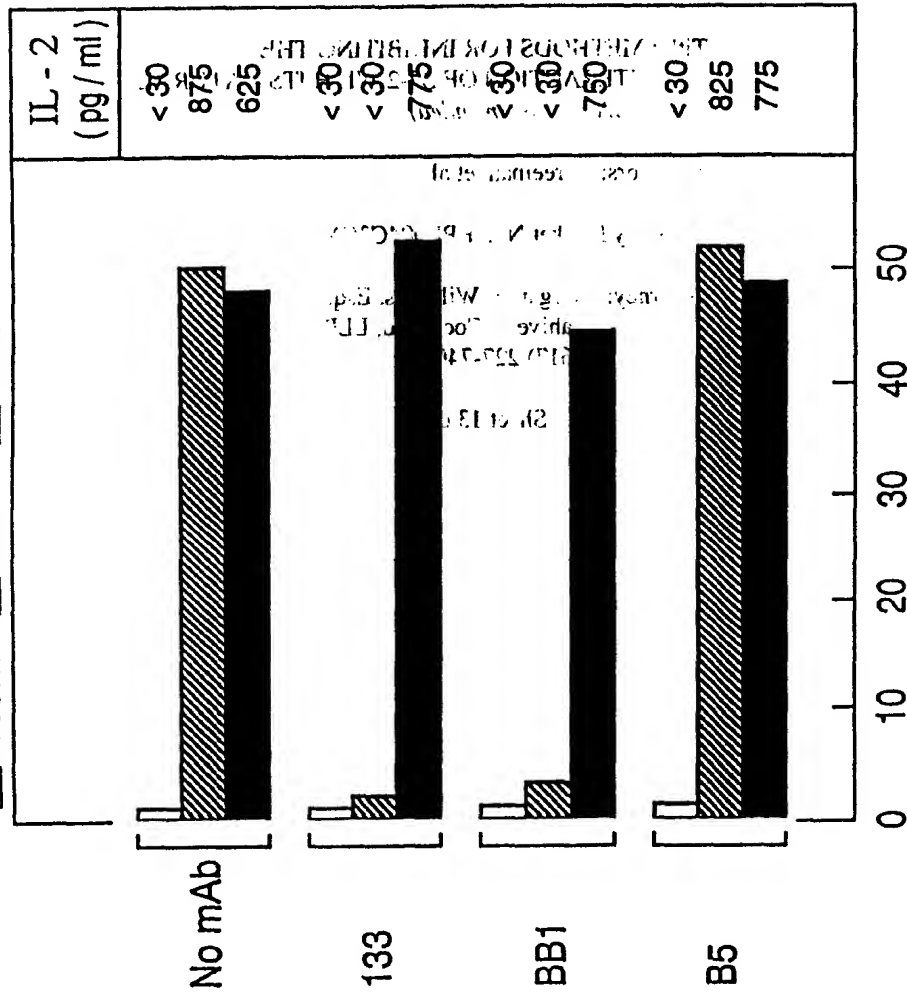




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CD28⁺ T cells + PMA :

□ Vector ▨ B7-1 ■ B7-2



[³H] Thymidine Incorpor. (cpm x 10⁻³)

FIG. 12A

FIG. 12B

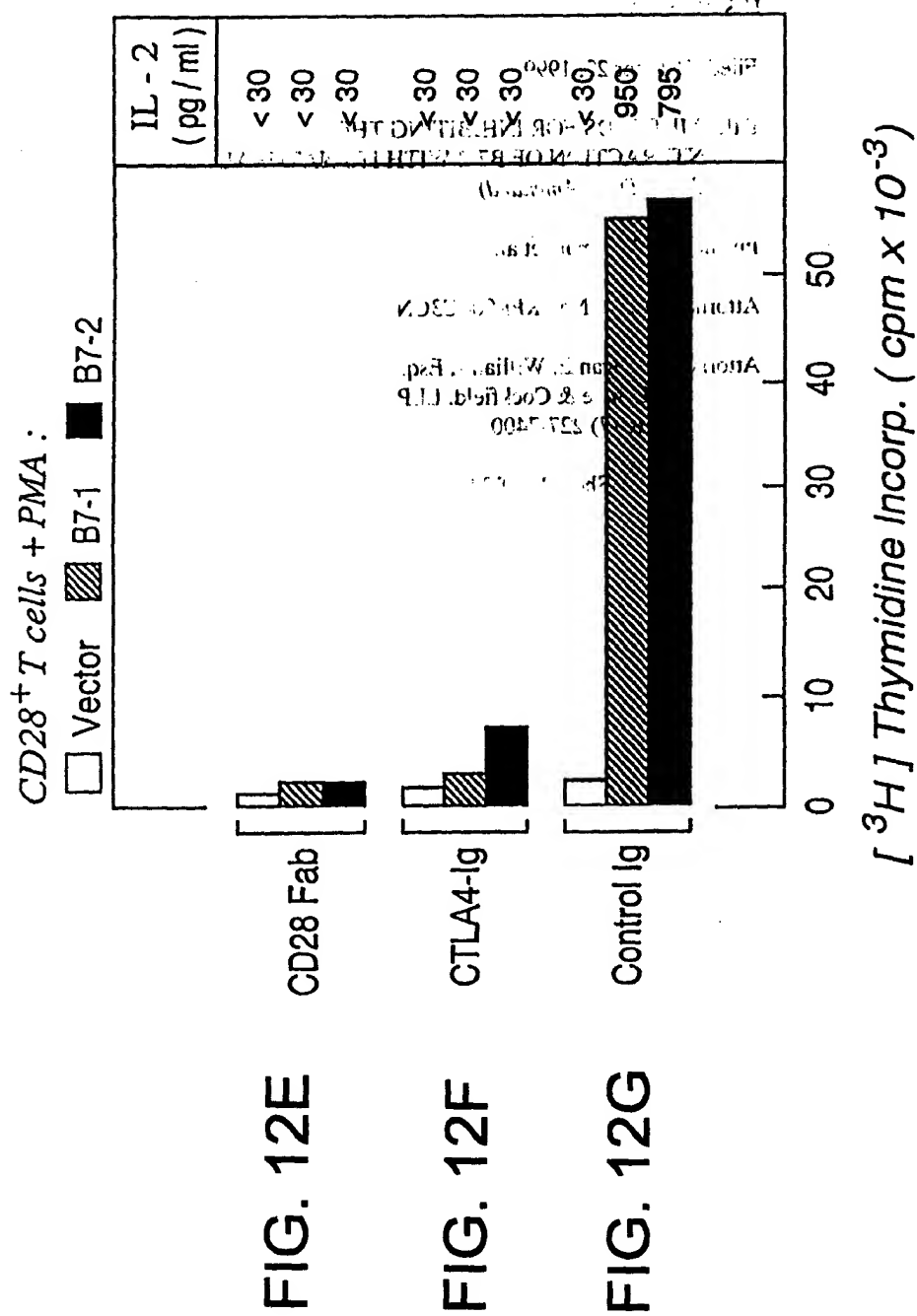
FIG. 12C

FIG. 12D



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FIG. 13A

hB7-1	1	M..GHTRRQGTSPKCPYLNFFQLLV.LAGLSHFCSGV.IHVTKEVKEVA	46
hB7-2	1	M....DPQCTMGLSN.....ILFVMAFLLSGA...APLKIQAYFNETA	36
mB7	1	MACNCQLMQDTPLLKFFPCPRLLILFVLLIRLSQVSSDVDEQLSKSVKDKV	50
hB7-1	47	TLSCGHNVSVEE.LAQTRIYWQKEK...T.MMSGDMNI...WPEYKNRT	91
hB7-2	37	DLPCQFANSQNQSLSELVFWQDQENLVNEVYLGKEKFDVHSGKEMGRT	86
mB7	51	LLPCRY.NSPHEDESEDRIYWQKHKDKVVS...WPEYKNRT	95
hB7-1	92	IFDITNNLSIVILALRPSDEGTYESVVLKYERDAFKPEHEAEVTLVKAD	141
hB7-2	87	SFD.SDSWTLRLHNLQIKDKGLYQCIHHKKPTGMIRIHQMNSELVLAN	135
mB7	96	LYDNNT.YSLIILGLVLSDRGTYSVWQKKERGTYEVKHLALVLSIKAD	144
hB7-1	142	FPTPSISDFEIPTSNI.RRIICSTSGGFPEPH....LSWLENGEELNAIN	186
hB7-2	136	FSQPEIVPISNITENVYINLTCSSIHGYPEPKKMSVLLRTKNSTIEYDGI	185
mB7	145	FSTPNITESGNPSADT.KRITCFASGGFPKPR....FSWLENGRELPGIN	189



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FIG. 13B

hB7-1	187	TTVSQDPETELYAVSSKLDEN...MTTNHSEFMCLIKYGHLRVNQTFNWNT	233
hB7-2	186	MQKSQDNVTELYDVSVISLSVFPDVTSNMTIFCILETDKTRLLSSPFSIE	235
mB7	190	TTISQDPESELYTISSQLDEN...TTRNHTIKCLIKYGDHVSDEFTWEK	236
hB7-1	234	TKQEHF.PDNLLPSWAITLISVNGIFVICCLTYCFAPRCRRRRNERLRR	282
hB7-2	236	.LEDPPPPDHIPWITAVLP...TVIICVMVFCLILWKWKKKRBRNSY	280
mB7	237	PPEDPPDSKNTLVLFAGFGAVITVVIIKCFCKHRSCFRNEA.SR	285
hB7-1	283	ESVRPV*	288
hB7-2	281	KCG...TNTMERESEQTKKREKIHIPERSDEAQRVFKSSKTSKSDT	327
mB7	286	ETNNSLTFGPPEEALAEQTVFL*	306
hB7-2	328	CG*	329



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FIG. 14A

1 CCCACGGTCCGGGAGCAAGCAGACGGCGTAAGAGTGGCTCCTGTAGGCAGCAGGACTTG + 60
GGGTGCGCAGGCCCTCGTTCGTCTGCGCATCTCACCAGGACATCCGTGTCCTGAAC

61 AACCAACCAGACTCCTGTAGACGTGTTCCAGAACTTACGGAAGCACCACGATGGACCCCA + 120
TTGTTGGTCTGAGGACATCTGCACAAGGTCTTGAATGCCCTTCGTGGGTGCTACCTGGGT

121 GATGCACCATGGGCTTGGCAATCCTTATCTTTGTGACAGTCTTGTCTGATCTCAGATGCTG + 180
CTACGTGGTACCCGAACCGTTAGGAATAGAAACACTGTCAAGACTAGAGTCTACGAG

181 C T M G L A I L I F V T V L I S D A V + 240
TTACCGTGGAGACGCAAGCTTATTTCAATGGGACTGCATATCTGCGTGGCCATTACAA
AAGGCACCTCTGCGTTCGAATAAAGTTACCTGACGTATAGACGGCAGGGTAAATGTT

241 S V E T Q A Y F N G T A Y L P C P F T K + 300
AGGCTCAAAACATAAGCCTGAGTGAGTGGTAGTATTTGGCAGGACCAGCAAAAGTTGG
TCCGAGTTTGTATTGGACTCACTCGACCACATCAATAAACCGTCTGCTGTTTCAACC

A Q N I S L S E L V V F W Q D Q Q K L V -

FIG. 14B (continued on next page)

ETATASVTVALLVMLIVC-



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FIG. 14D

901 GTCAAGAAGCCGAATCAGCCTAGCAGGCCAGCAACACAGCCTCTAAGTTAGAGCGGG
960 CAGTGTCTTCGGCTTAGTCGGATCGTCCGGGTCGTGTGTCGGAGATTCAATCTCGCCC

H K K P N Q P S R P S N T A S K L E R D -

961 ATAGTAACGCTGACAGAGAGACTATCAACCTGAAGAACTTGAACCCCAAAATTGCTTCAG
1020 TATCATTCGCACTGTCTCTCTGATAGTAGTGGACTTCCTTGAACCTGGGGTTTAACGAAGTC

S N A D R E T I N L K E L E P Q I A S A
1021 CAAACCAAAATGCAGAGTGGAAGGCAGTGAGAGCCTGAGGAAGAGTTAAATGCTTTG
1080 GTTTTGGTTTACGTCTCACTCCGTCACCTCTCGGACTCCTTCTCAATTTTAAACGAAC

K P N A E *

1081 CCTGAAATGAAGAAGTGCAGAGTTTCTCAGAAATCAAAAATGTTCTCAGCTGATTGGAATT
1160 GGACTTTATTCTTCACGTCTCAAAGAGTCTTAACCTTTTACAAGAGTCGACTAACCTTAA

CTACAGTTGAATAATTAAAGAAC
1141 -----+-----+----- 1163
GATGTCACACTTATTAATTCTTG

FIG. 14D

FIG. 14D



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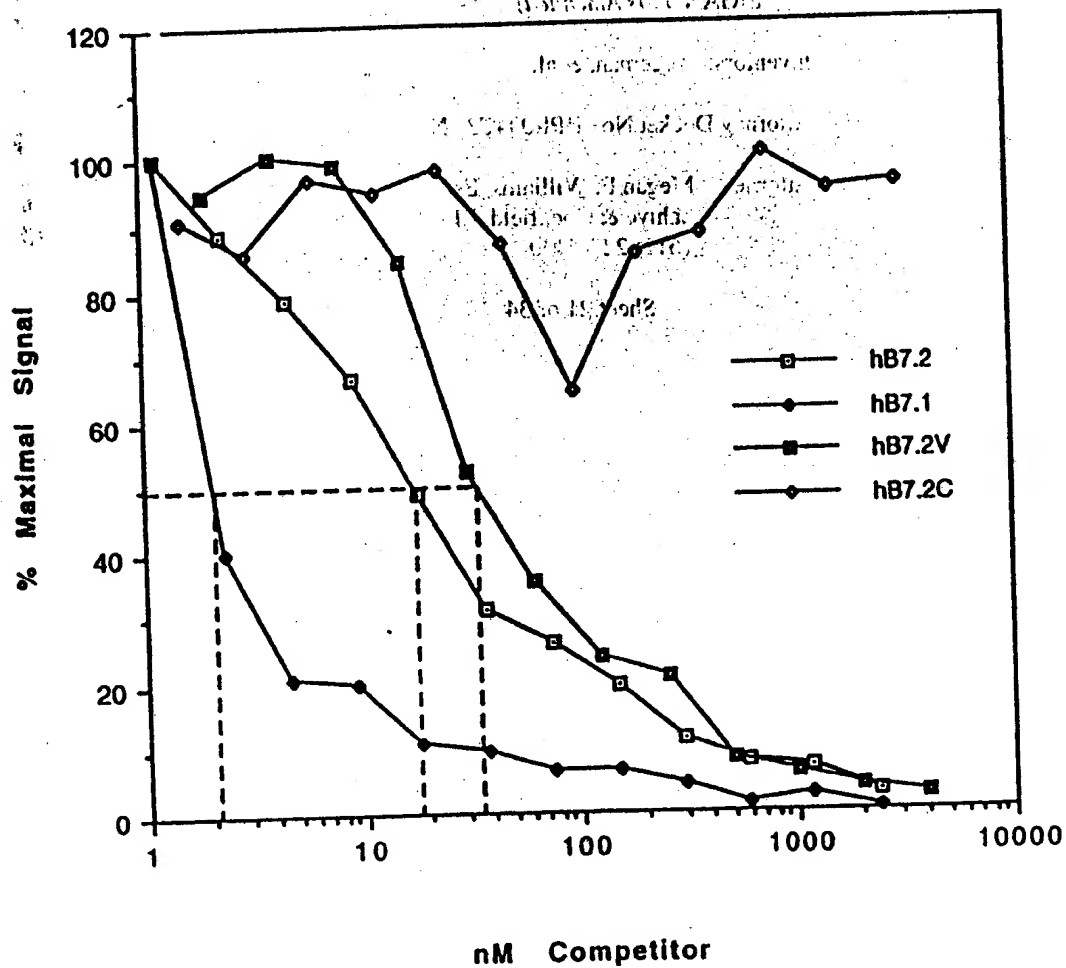


FIG. 15



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FIG. 16A

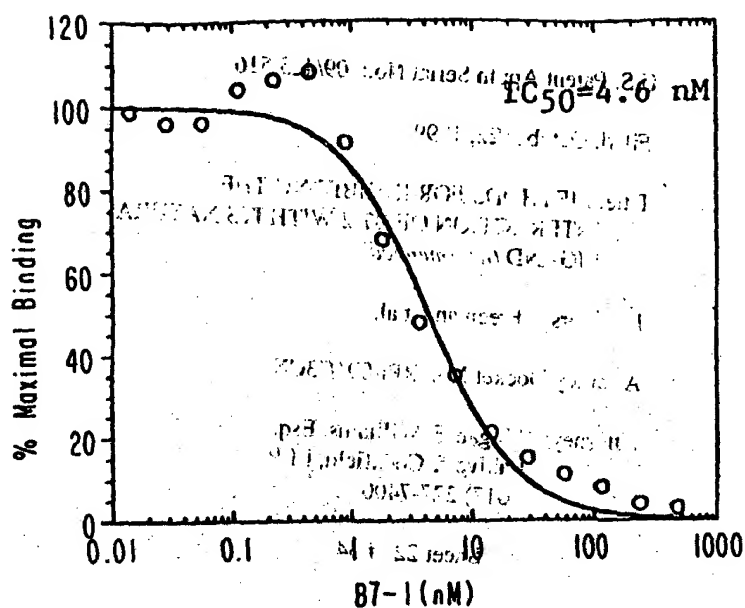
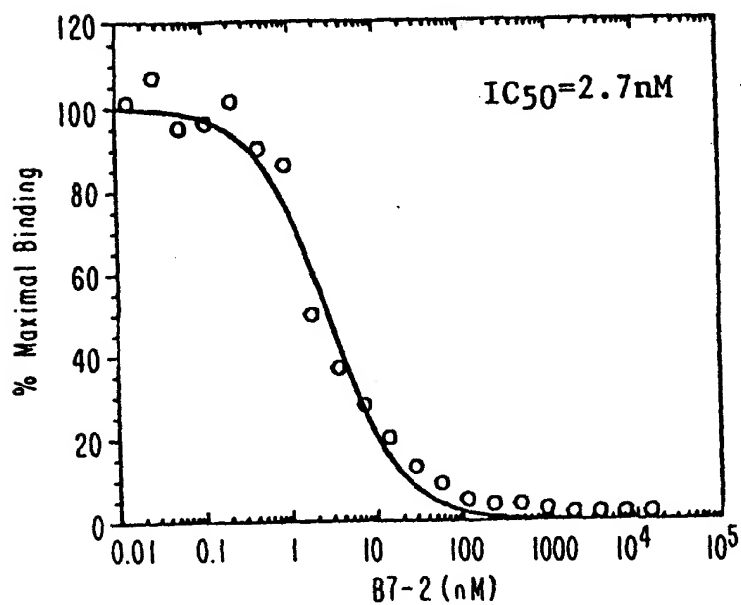


FIG. 16B





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FIG. 17B

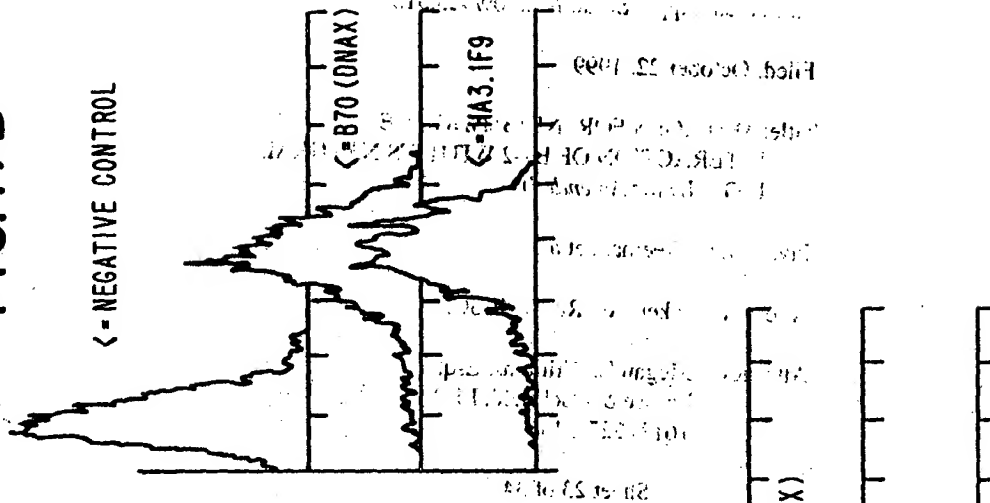


FIG. 17C

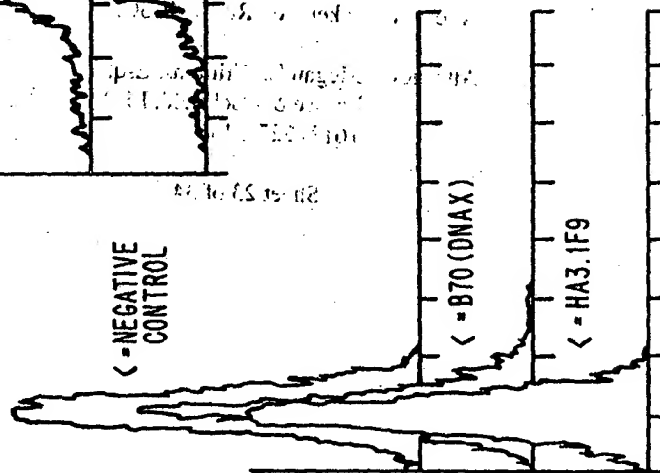
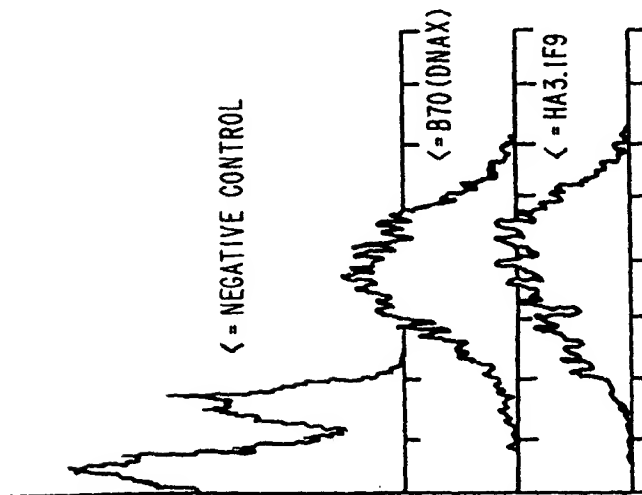


FIG. 17A





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FIG. 18B

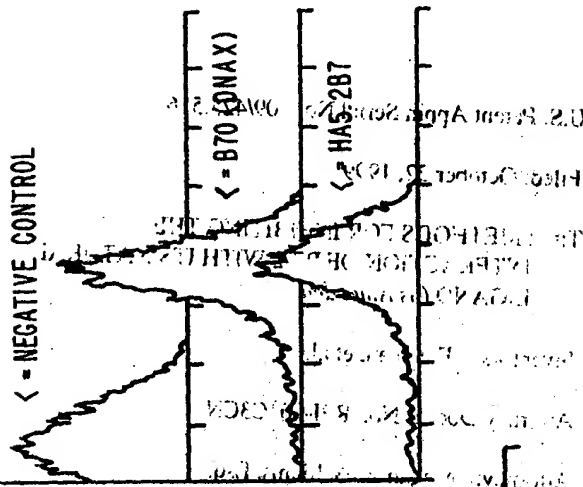


FIG. 18C

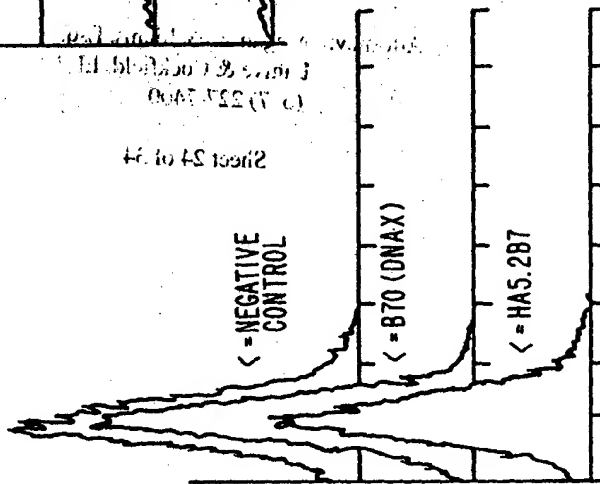
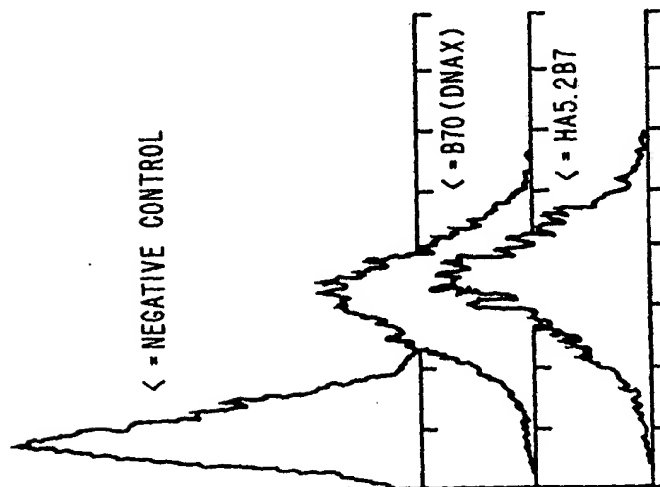


FIG. 18A





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FIG. 19B

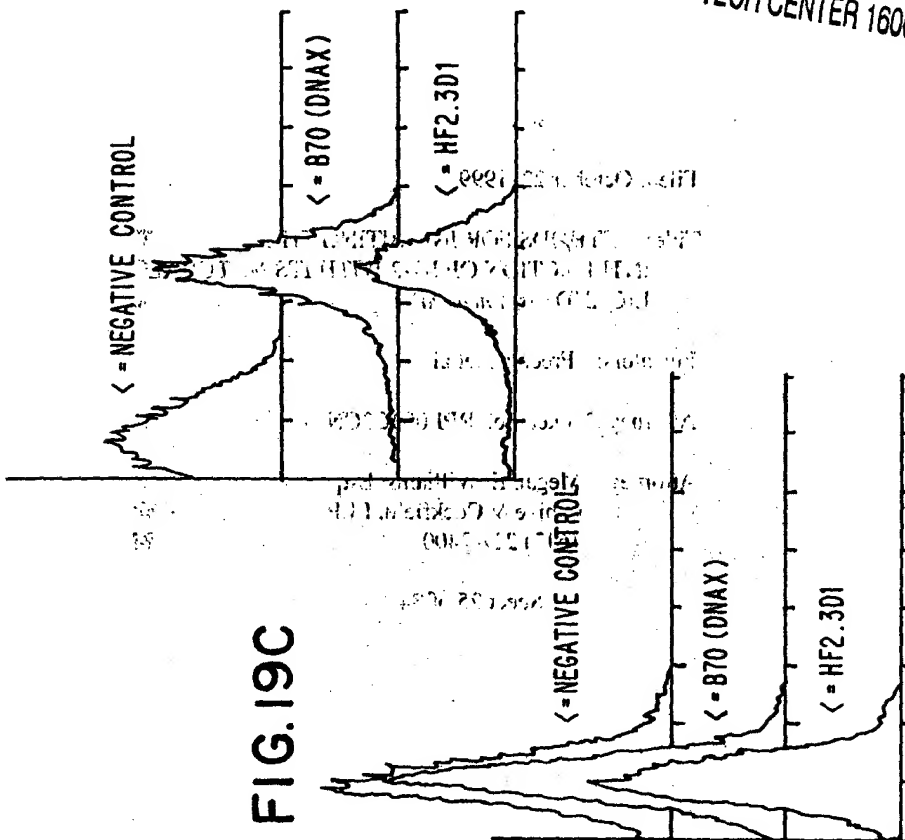


FIG. 19C

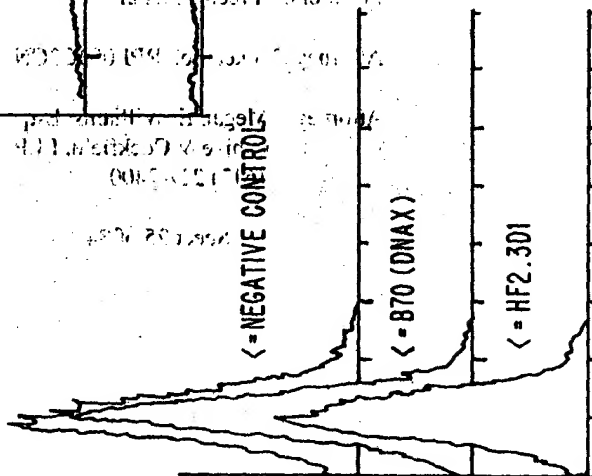
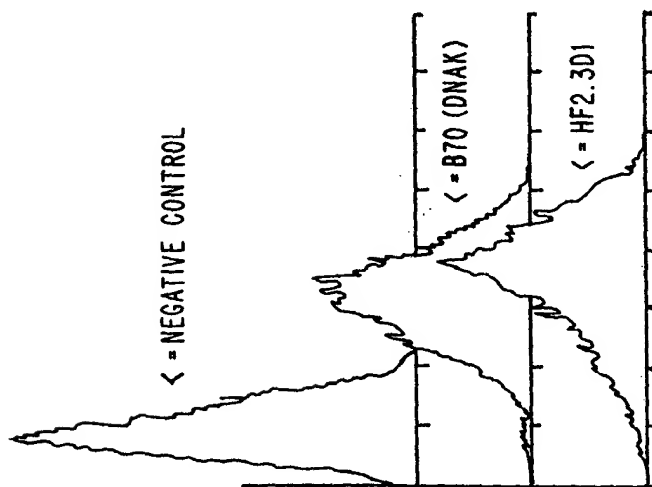


FIG. 19A





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U.S. Patent Application Serial No. 09/457,210

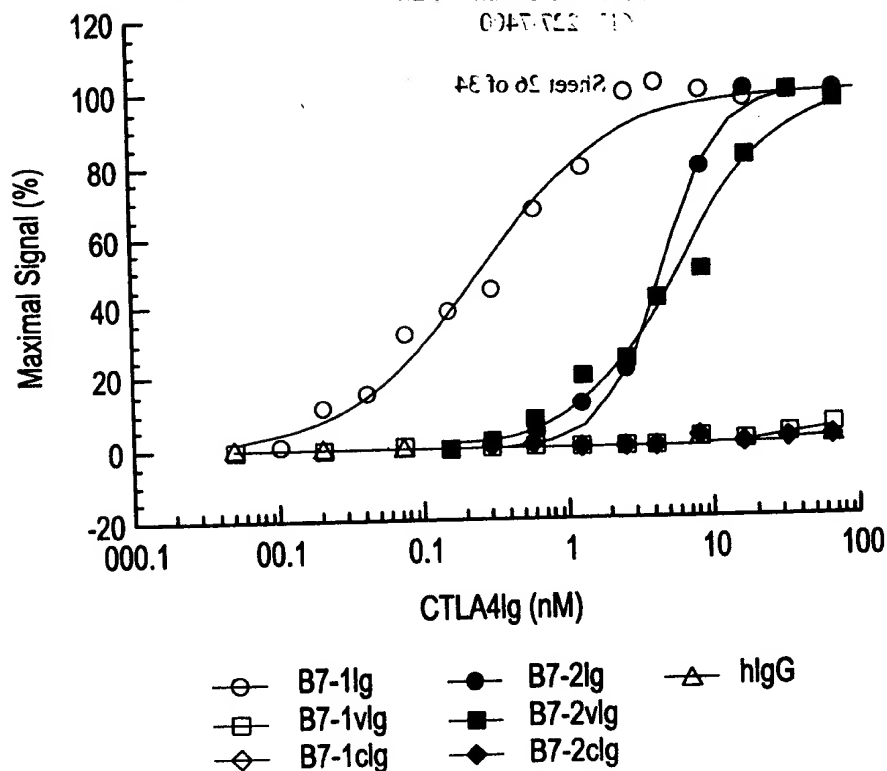
Filed November 2, 1999

IMMUNIZATION OF MICE WITH A B7-1/B7-2
EXPRESSION VECTOR

Inventors: [illegible]

FIG. 20

Abstract: [illegible]





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FIG. 21A

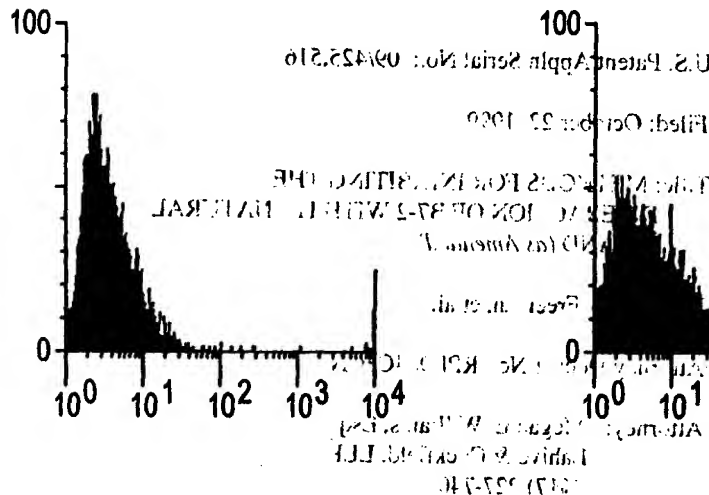


FIG. 21B

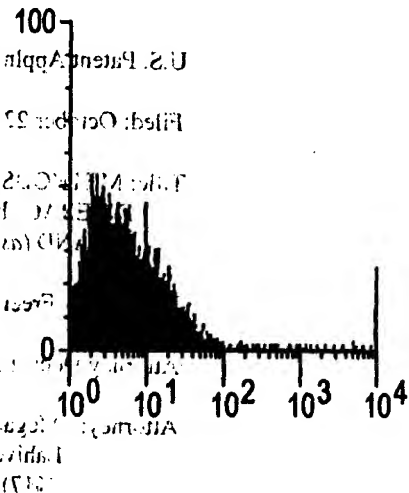


FIG. 21C

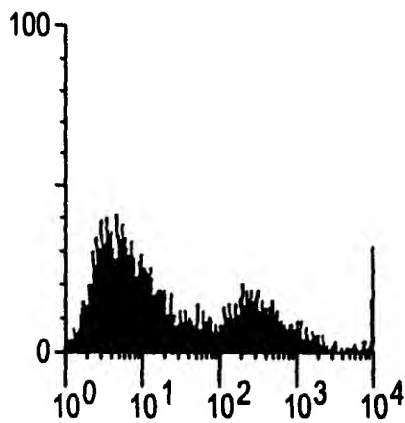


FIG. 21D

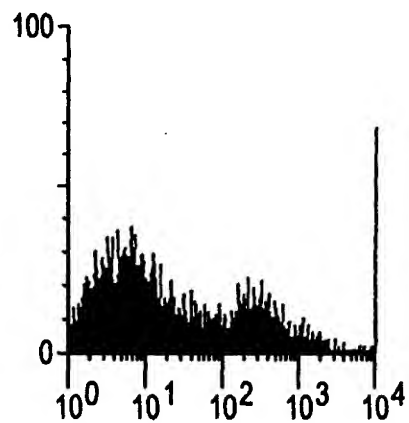
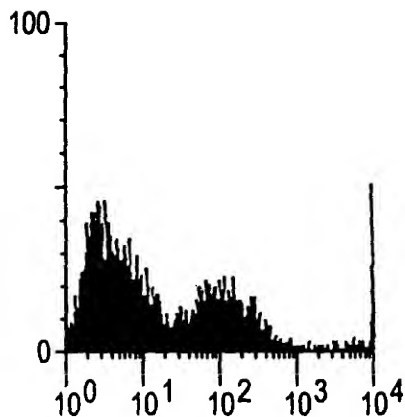


FIG. 21E

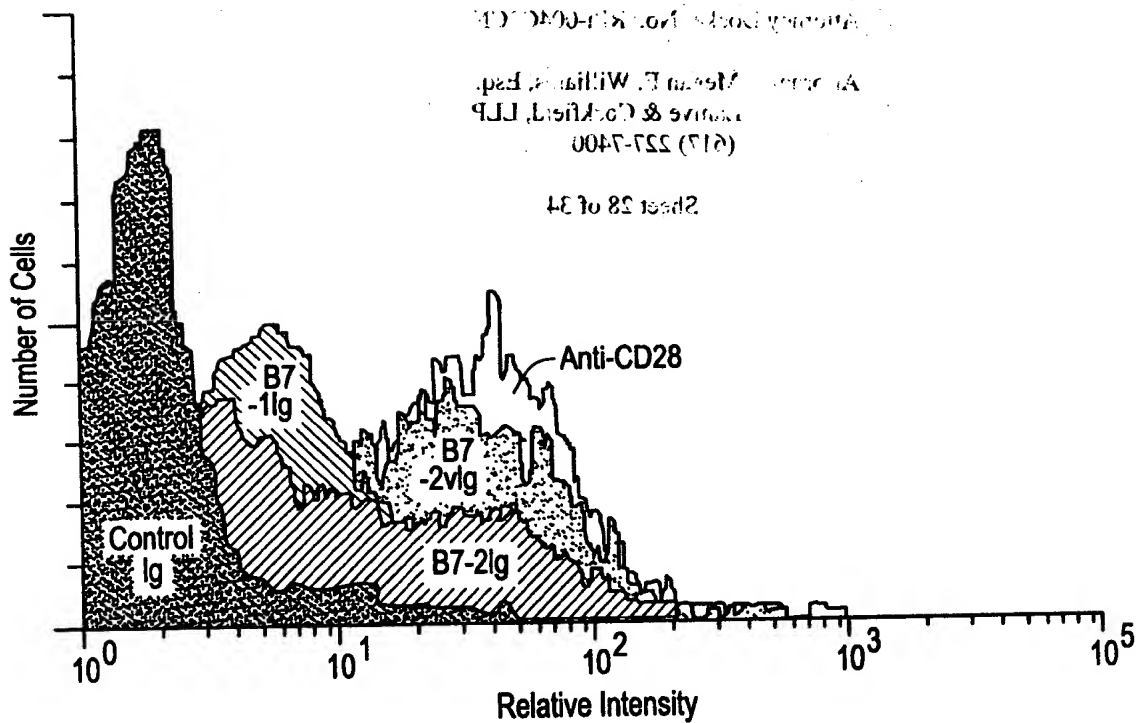




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FIG. 22

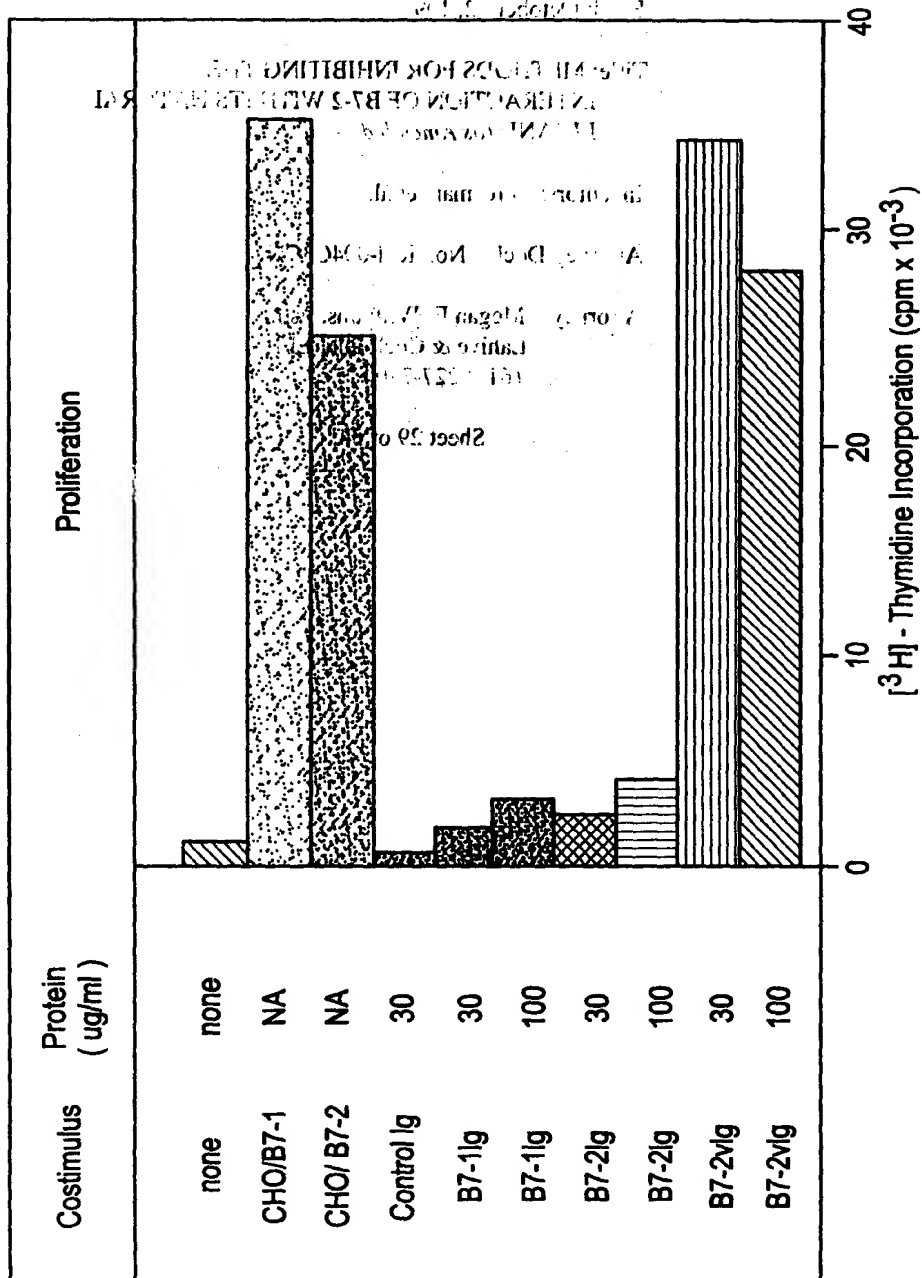
FIG. 22 shows the effect of B7-2 on the expression of B7-1 on T cells. The graph shows the number of cells versus relative intensity for B7-1, B7-2, and B7-2lg. The B7-2lg curve is shifted to the right, indicating a higher relative intensity compared to the B7-1 and B7-2 curves.





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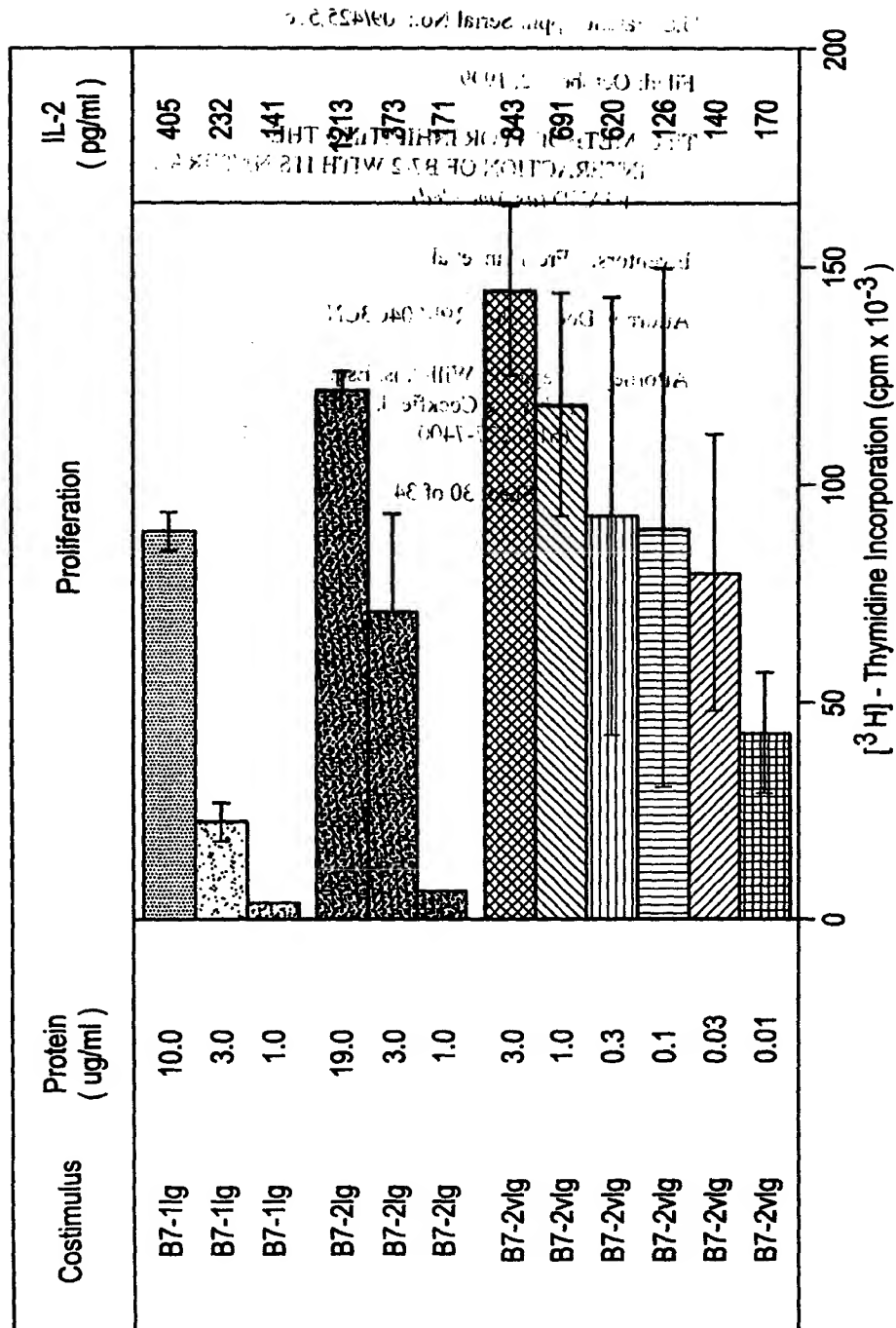
FIG. 23





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FIG. 24





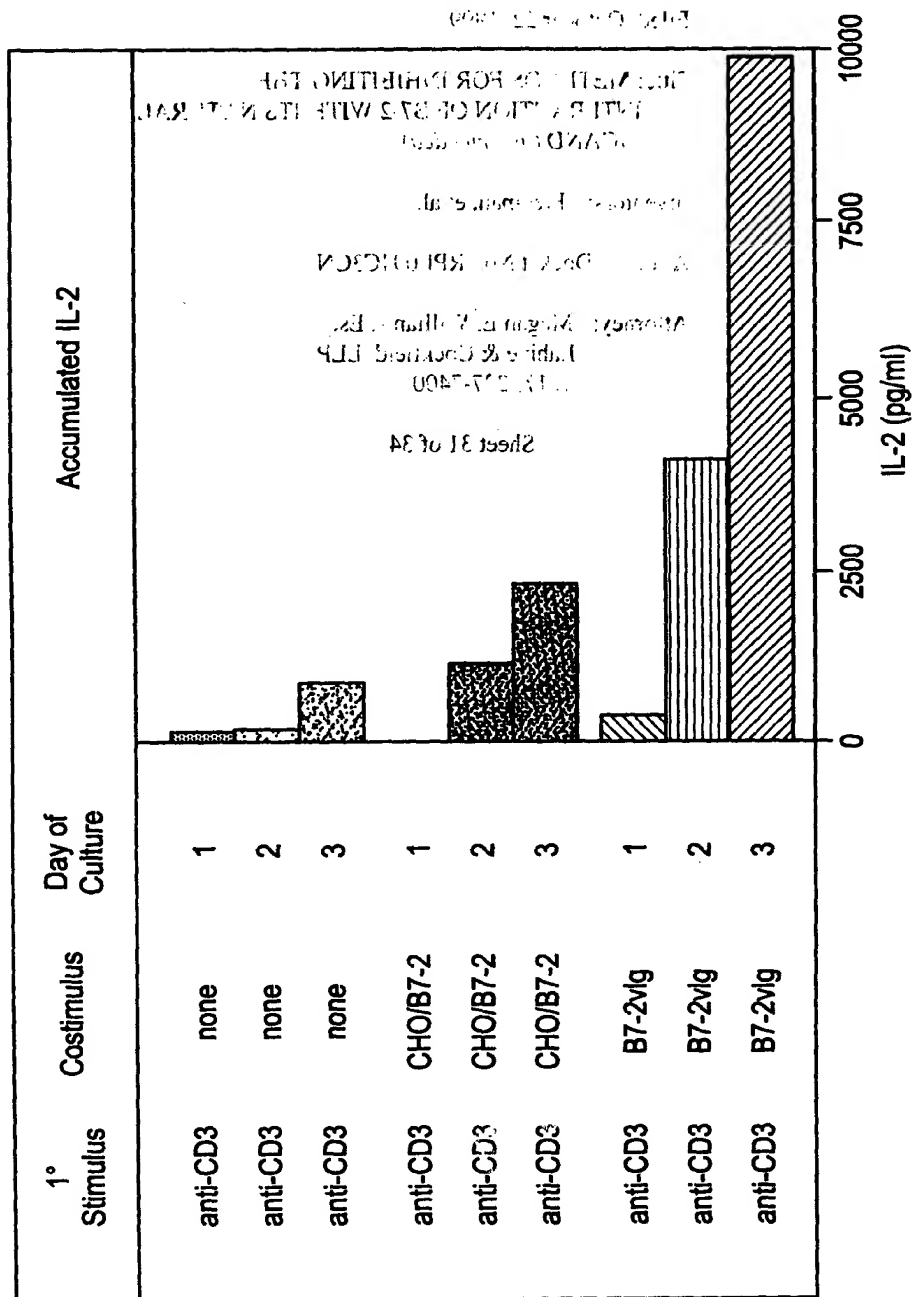
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FIG. 25



U.S. Patent Application No. 00/452,219

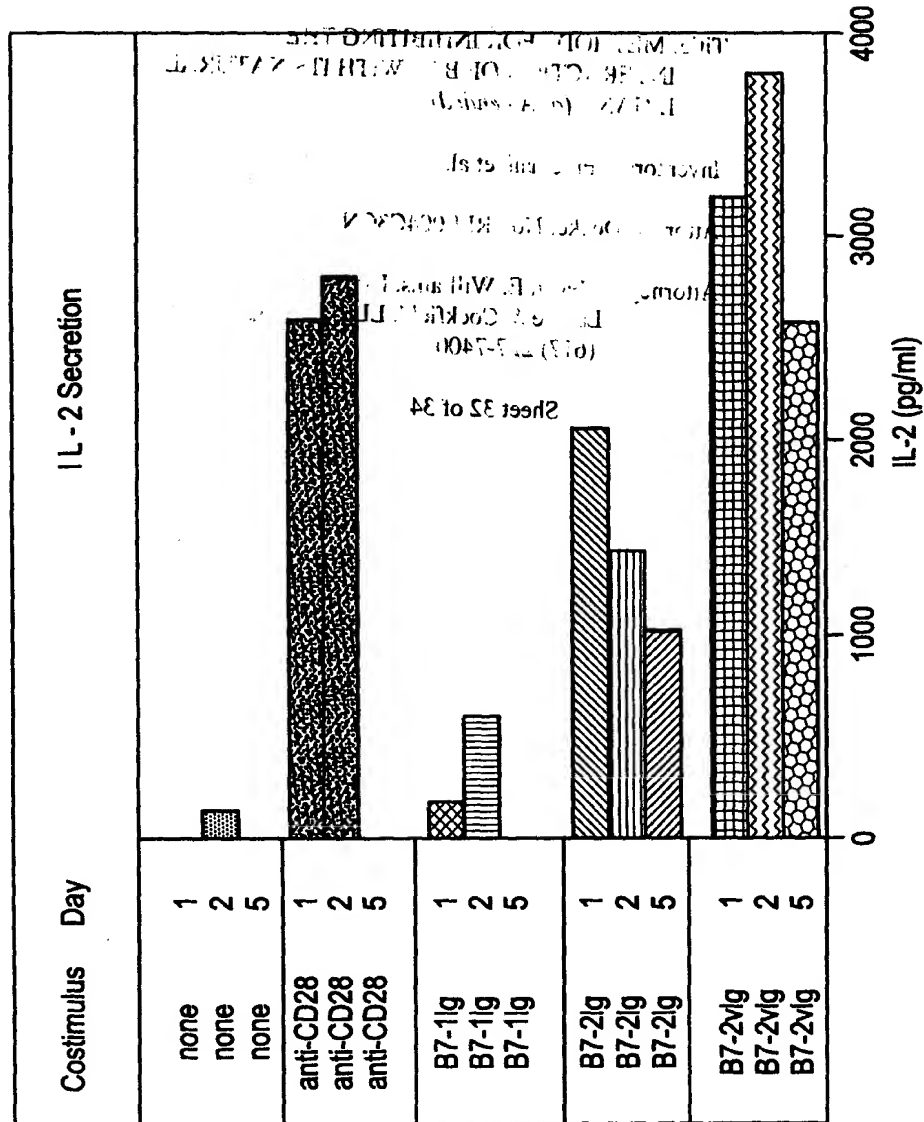
FIG. 25 is a bar chart

FIG. 25 is a bar chart showing the accumulation of IL-2 (pg/ml) over a 3-day culture period. The y-axis represents IL-2 concentration in pg/ml, ranging from 0 to 10000. The x-axis shows the Day of Culture (1, 2, 3) for various stimuli and costimuli. The chart is divided into three groups of bars, each corresponding to a different primary stimulus (anti-CD3). The first group shows results for 'none' costimulus, the second for 'CHO/B7-2', and the third for 'B7-2vlg'. In all cases, IL-2 production increases over time, with the highest production observed for the B7-2vlg costimulus on Day 3.



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FIG. 26





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FIG. 27

